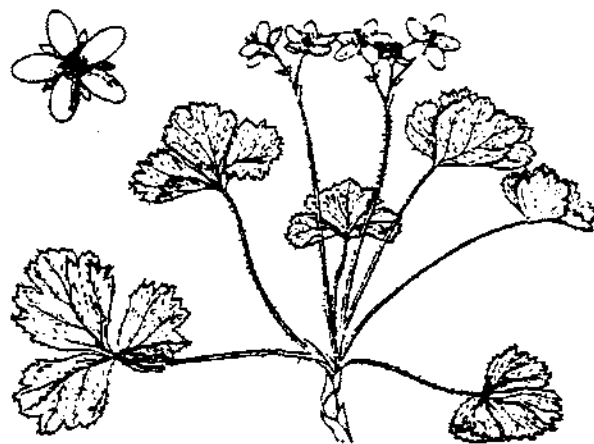


## MASSACHUSETTS SPECIES OF SPECIAL CONCERN

### BARREN STRAWBERRY

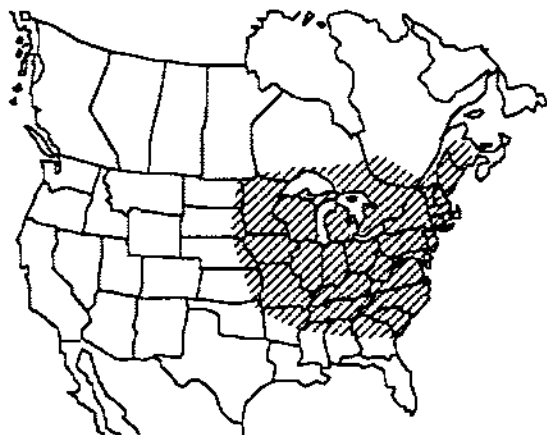
(*Waldsteinia fragarioides*)

**DESCRIPTION:** Barren Strawberry, a member of the Rose family (Rosaceae), is a low (10-20 cm, 4-8 inches) perennial woodland herb. It bears 2-6 dry, single seeded, inedible fruits, and is able to form large colonies by lateral growth of underground stems (rhizomes). The flowering stems (scapes) contain several small yellow flowers, 1.3 cm (approximately 0.5 in.) long, arranged in a flat topped cluster (cyme). The five rounded and obovate to broadly elliptic petals are much longer than the five sepals which are united into a cup. Flowers are produced on separate stalks from the leaves. Basal leaves (located at the base of the plant) are evergreen and measure 10 - 20 cm (4-8 in) long. Stem leaves are wedge-shaped with each having three obovate, irregular toothed leaflets 2.5-5 cm (1-2 in.) long. Flowering season is from early May to early June.

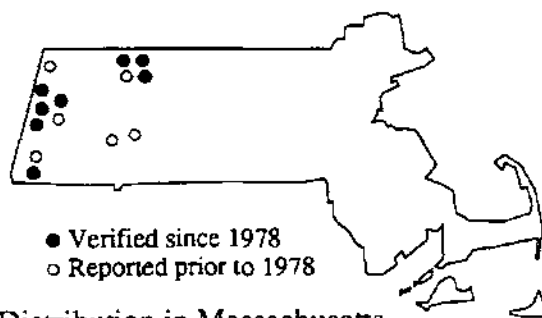


Gleason The New Britton and Brown Illustrated Flora of the Northeastern U.S. and Adjacent Canada New York Botanical Garden, 1952.

(continued overleaf)



Range of Barren Strawberry



Distribution in Massachusetts

**SIMILAR SPECIES:** As its name implies, the barren strawberry resembles the wild strawberry (*Fragaria*, also in the Rose family) but differs in the shape of the leaflets, flower color, and technical characters of the fruit. Wild strawberry has white flowers (instead of the yellow of the barren strawberry), much narrower leaflets, and enlarged, juicy, edible fruits. The fruit of the barren strawberry is a cluster of dry hard seeds.

**HABITAT IN MASSACHUSETTS:** Barren strawberry occurs over a diverse range of habitats, including a variety of forest types, wet thickets, clearings, dry sandy woods, barrens, slopes and rock outcrops. In Massachusetts, it is generally found in rich wooded to semi-open banks and in rich mesic-shaded forest on old floodplains with humus-rich soil. However, one site of the species is in a well drained area in sandy dry soil near a large wetland with calcareous fen properties. It seems to do well in cool, woody spots and does not appear to be affected by disease or pests. Shade for barren strawberry is often provided by a canopy of sugar maple, white ash, white pine, hickories, and ironwood, among others. Surrounding herbs may include wild ginger, lady fern, ostrich fern, and wild leeks. In Massachusetts, a number of verified occurrences are found at low elevation and flat terrain, although a few occur on 20-45 degree slopes.

**RANGE:** Barren strawberry extends from Quebec to New Brunswick; south through Maine to the uplands of Georgia and Tennessee; west to Minnesota; with local populations in Indiana and Missouri.

**POPULATION STATUS:** Barren strawberry is listed as a "Species of Special Concern" in Massachusetts. As with all species listed in Massachusetts, individuals of the species are protected from take (picking, collecting, killing...) and sale under the Massachusetts Endangered Species Act. There have been 16 recent (since 1978) verified occurrences and 10 historical occurrences. The species is also considered rare in Arkansas, Connecticut, Illinois, Indiana, Maine, Minnesota, Missouri, New Hampshire, and New Jersey. Much habitat which would appear to be suitable for this species exists in Massachusetts. However, barren strawberry grows in only a limited portion of this land, indicating that there are other unknown factors or habitat requirements influencing its distribution.

**MANAGEMENT RECOMMENDATIONS:** As with most rare plants, exact needs for management of the Barren strawberry are not known. The following advice comes from observations of the populations in Massachusetts. The species seems to do well in shade, but some populations may benefit from partial opening of the canopy around the plants. Observations of the particular populations are necessary to determine if such opening would improve reproduction. Barren strawberry requires protection from grazing, exotic plant competition, trail placement, development, and disturbances from forestry activities such as rock-raking, aerial spraying of herbicides, and clearcut logging. In general, the principal management requirement for this species is simply the protection of its habitat.